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Are CRM systems ready for AI integration?

A conceptual framework of organizational readiness for effective AI-CRM integration

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Abstract

Purpose – The purpose of this paper is to develop a conceptual framework to check if an organization is ready to adopt an AI-integrated CRM system. The study also analyzes different situations which can provide a comprehensive check list in the form of indicators that could provide a signal indicating whether the organization is ready to adopt an AI-integrated CRM system by capturing actionable and appropriate data.

 $\label{eq:Design} \textbf{Design/methodology/approach} - \text{The paper is a general review, and appropriate literature has been used to support the conceptual framework.}$

Findings – The key findings of this study are the different indicators that make up the conceptual framework. This framework can help organizations to check at a glance whether they are ready to adopt AI-integrated CRM system in their organizations. Specifically, it has been identified that different approaches are needed to tackle various types of customer data so that those may be made fit and actionable for appropriate utilization of AI algorithms to facilitate business success of an organization.

Practical implications – The paper has elaborately discussed the different approaches to be undertaken to calibrate and reorient the various kinds of actionable data and the contemplated challenges one would face in doing so. This would help the practitioners that how the data so captured can be made fit for action and utilization toward application of AI technologies integrated with existing CRM system in an organization.

Originality/value – This study is claimed to be a unique study to provide a conceptual framework which could help arranging and rearranging of captured data by an organization for making the data fit and ready for use with the help of AI technologies. This successful integration of AI with CRM system can help organizations toward taking quick and automated decision-making without much intervention of human beings.

Keywords CRM, Framework, Organization, Integration, AI, Readiness

Paper type Research paper

1. Introduction

Artificial intelligence (AI) is a concept where a machine has the ability to think, learn and imitate intelligent human behavior (Awasthi and Sangle, 2013). An AI-powered machine is



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able to perform tasks like learning, planning and realizing languages, even without human interference. The brain behind AI is machine learning, which are algorithms that process data, learns from data and use data to make well-informed decisions. This process renders our jobs easier and faster (Maxwell *et al.*, 2011). Because of these processing abilities, AI is considered as an effective device to improve customer relationship management (CRM) activities (San-Martína *et al.*, 2016).

CRM is considered an effective tool to know the organizations' customers more systematically by "identifying a company's best customers and maximising the value from them by satisfying and retaining them" (Kennedy, 2006, p. 58). CRM is associated with the techniques for improving businesses through overall improvement of customers' satisfaction and organizational performance (Keramati *et al.*, 2010; Nguyen and Mutum, 2012). For example, a customer's habit analysis and subsequent service personalization come under the mechanisms of CRM (Graca *et al.*, 2015). However, more than often, the sole concern – and the ultimate measure of success for the use of CRM – is on the financial performance indicators of the organizations (Lambert, 2010), such as return on investment (ROI), profits and so on. As the AI revolution is upon us, we explicitly believe that, in any business context, a successful organization needs to consider information and data as the most important aspect of a business, if it is to improve its business health. Analyzing and managing huge amounts of data – of customers and of different categories – thus becomes the most essential aspect of a business (Li and Nguyen, 2016).

However, analyzing huge amounts of data (e.g. of customers) is a difficult task for humans, and managing those huge data sets in an effective and calibrated way requires help from modern information and communication technology (ICT) tools (Molinillo and Japutra, 2017). Herein lies the need of an AI application (Bose, 2002; Schultz and Pick, 2012). For example, for the analysis of data of various natures concerned with customers to assess their purchase habits, likings and disliking and so on, the application of AI becomes necessary. Such an AI-integrated CRM system is necessary to enhance the loyalty of customers, increase revenue and competitive advantages of the organizations (Graca et al., 2015). This hybrid modern system would help to analyze customers' data substantially to ensure accurate decision-making without human intervention. A combined system of AI and CRM is not merely a technological innovation, but a necessity that helps to analyze the data of customers strategically to improve overall business process of the organizations to achieve success. Importantly, the two systems have to be integrated, so that the customers' data are ready and otherwise fit for analysis through AI application (Verma and Verma, 2013). Such application of AI in CRM would enable the storing of customer data in a cloud platform for analysis in a quick and accurate way with less cost and less complexity (Wen and Chen, 2010), creating increased revenue. AI is a powerful and disruptive technology compared to any previous shift in technology. A recent study has revealed that, from 2017 to 2021, with the help of AI application in CRM, organizations would earn a revenue to the tune of US \$1.1tn (Gantz et al., 2017). Against this background, this article takes a holistic attempt to investigate how data can be made ready and actionable for use in the application of AI to achieve the best results and to provide a conceptual framework that can readily ascertain if an organization is fit and ready to execute unhindered application of AI in CRM in that organization.

2. Data and AI algorithm

It is natural that both data and effective AI algorithm are vital for making the AI work substantially for its appropriate application in CRM activities in a business organization.

Of late, we have been able to arrive at the intersection of three salient and effective ingredients. These are essential to meaningfully create true and actionable AI in the form of effective data and AI algorithm. These are smarter data models, unhindered access of unlimited amount of virtual data and powerful but cheap cloud computing system (Alshare and Lane, 2011). It is observed that most of the effective CRM applications in a business organization have started to provide AI features/algorithms with their products, for example, "Dynamics 365 for customer insights". It has effectively been able to undertake predictive analysis from the different data of customers. It has been able to build effective relationships basing on the data gathered from various sources and has been successfully able to provide actionable matrices. However, these features, associated with AI mechanisms, would be working to fetch best and laudable results if they are provided with effective data of customers congenial for the purpose (Awasthi and Sangle, 2012). Hence, first, it is needed to have latest, updated, purely clean and actionable data in hand in the CRM system. After this, the AI features or algorithms are expected to derive successful results in the business scenario of the organization (Alshibly, 2015). In this paper, we present a conceptual framework that can be used as a tool to ascertain if the data are fit and ready for application through the AIintegrated CRM system.

3. Application of AI-CRM to optimize business operations

We have here given five different applications where AI would complement CRM software by accurately optimizing business operations:

- (1) Automate routine tasks: AI would help to automate mundane tasks. It would effectively reduce time. AI will help to handle activities, including updating forecasts, data input and retrieval, determination of call lists. AI–CRM system will help the organization by accurate recommendation and flawless decision-making. The salesperson will be able to target the exact customer and would be able to build a relationship and to ultimately close the deals.
- (2) Lead customization, appropriate segmentation and prioritization: An AI–CRM system will help to learn historical patterns, habits history of customers. These data would help to appropriately categorize the customers. After this, by the AI CRM application, it will be possible to prioritize best leads that will help the sales team to effectively pursue.
- (3) Customer service and retention: By the application of AI–CRM integration, it will be possible to gather appropriate insights from huge data that would help the organization to build appropriate target profiles. With target customers, the salespersons may interact. This would enhance customers' satisfaction and will also help to retain the customers as a future asset. It will help the salesperson to ascertain which mode of communication would be effective, whether a call or an SMS or an email.
- (4) Guide the team: AI-CRM integration will help to plan pragmatic roadmap for the organizations. This would help stepwise approach from lead to deal. This hybrid system would effectively guide the sales team to act for driving better results under any type of situations.
- (5) Virtual assistance: An AI–CRM system would act as a virtual assistant. It will be able to automate customers' responses, activities covering data capturing, and so on. This can assess the client's Web behavior and demographics. This virtual assistant will be able to send appropriate responses through emails to the customers, can even book an appropriate time with the potential customer.

The above discussion highlights that AI–CRM integration will be an indispensable asset to sales team of a business organization. It will help the sales team to save their time, and this will help them to give much time and efforts for building customer relationship which is very important for an organization to achieve business success.

3.1 Few examples of AI – CRM tools

Many renowned organizations like Zoho, SugarCRM, Salesforce and so on have been able to successfully apply AI-integrated CRM systems into their platform:

- *Zoho*: Zoho has introduced a software named "Zia". It acts as a "Conversational AI assistant". It acts to assist like a simple as well as complex data analytics. Talking to "Zia" is very simple as if one is calling "Zia" from one's mobile application.
- *SugarCRM*: The name of this product is "Hint". It is able to automatically search, tune and provide inputs that are helpful to collect corporate and personal profile in detail. Within seconds, the results appear.
- Salesforce: Its AI tool is called "Einstein". It is helpful to deliver predictions and recommendations with the help of captured data of customers.

4. Approaches to prepare actionable customer data

There are different approaches to prepare data of customers. These data may be of various natures. Depending on the nature of the data, the approaches for preparation of actionable data are categorized (Coltman *et al.*, 2011). The CRM systems can capture various 360-degree information of customers (Chalmeta, 2006). These include learning of social activities of the customers, contact details, history of campaign response, communication details, purchase history, product details, history of interactions, machine details used by customers toward online activities, ticket information after sale and so on (Hillebrand *et al.*, 2011). These might need scientific and strategic application architecture. It includes migration of transparent data, integration with legacy applications of the business organizations, duplication and executable rules, calibrated field structure and well-designed CRM forms, as well as soothing integration with social networking sites. Hence, for preparation of actionable data to be used by AI, different approaches are needed to be adopted (Kim *et al.*, 2012).

4.1 Social approach

This is achieved by investigating the different ways through which it is possible for customers to reach the organizational selling activities. For this, undertaking extensive survey is needed, and the available feedbacks of customers are to be preserved with the help of portal, third-party method or by the aid of different social sites (Finnegan and Currie, 2010). Those customers should be provided with incentives or with substantial loyalties who take holistic attempt to bring or refer more other customers to the organization (Lacoste, 2016). Organizations should take attempt to facilitate applications to the cloud so that customers may be more connected and available. This strategy would be effective and helpful to increase the target base of the organization. It would also help in capturing more customers. This type of strategy has been found more helpful in case of B2C businesses (Hyytinen et al., 2015).

4.2 Integration approach

It is a common experience that data of customers are spread throughout multifarious corporate applications. These are data related with sales activities, data concerned with the campaign responses of customers, purchasers and invoices in ERP financial systems, grievances and feedbacks of customers in matters concerned with a call center application, social networking accounts, searches and quarries relating to corporate websites and so on (May et al., 2013). In connection with these different applications, the CRM system should be appropriately integrated for obtaining real-time data along with key data covering the activities of the potential customers (Josiassen et al., 2014). This is essential for achieving best business results. It will be achieved when AI technology would be applied on these appropriately integrated customers' data.

4.3 Auditing approach

After getting the appropriate sources for capturing relevant data, timely audit is required to be conducted. The data are to be made clean and congenial for effectively handling by AI (Graca *et al.*, 2015). The appropriate tool like spam filters, address validator, duplicate checkers and so on are to be effectively developed befitting with necessities (Hung *et al.*, 2013). Free-text fields are to be decreased, and the data are to be standardized into meaningful categories. Applications of AI would fetch maximum benefits to the business organizations if the data so obtained and stored are updated, accurate and appropriately segmented (John *et al.*, 2017). Thus, appropriate auditing of data is needed to facilitate best utilization of AI technology.

4.4 Regularization approach

With the help of elaborate survey and campaign, the organizations would collect data. But, mere capturing data of customers by this way would not fully serve the purpose (Sonia San et al., 2012). To ensure best results through applications of AI on CRM, it will be better if the business organizations take holistic attempts to enrich the data so collected and captured with the observed statistical or observed behavioral data. This can be easily achieved with the help of conducting research work or with the help of third-party consulting (Paul et al., 2012). Things will be clear if it is explained through a complete and understandable example. Basing on the report of income of a customer, a bank authority might find the customer suitable for releasing loan to the customer. But, if that customer possesses a bad credit rating as revealed from credit rating organizations, the customer will be a wrong person in respect of granting loan by the bank in his/her favor (Michael et al., 2014). Thus, the CRM system is required to borrow and analyze such type of data of customers from a third party to enrich and galvanize the already captured data. Unless this is done, the data should not be considered as a regularized data fit and ready for intelligent analysis and for accurate prediction with the application of AI (ThuyUyen and Teresa, 2013).

4.5 Analytical approach

The vision and target of a business organization are to analyze scientifically the captured data, and the organization is supposed to define appropriately the metrics which matter that vision of the organization. How the customers' appetite for purchase of a product can be identified is a problem, and that requires scientific analysis (Koh *et al.*, 2010). Things will be clear if an example is given here. It will not be considered enough and conclusive to target a potential customer for selling high and luxury cars by studying how many times that customer has visited the concerned sites. It should not be considered as an ideal strategy for the target. Rather, the conclusion may be drawn based on the age, income and other factors of the customer. Hence, customers' prank is to be analyzed with a focus on the affairs of the customer from all possible angles in a scientific way. The process of defining the metric may be considered to train the AI activities of the organization to learn the effective actionable

data (Ramayah and Jantan, 2004). Basing on the available data and capabilities, as well as effectiveness of the metrics, an organization is scheduled to set up triggers or actions. In this analytical capability issue, customization capabilities of CRM of the organization play a vital role (Mulero and Adeyeye, 2013).

5. Challenges

However, the mechanisms relating to the above different approaches for making the available data ready for use by the help of AI should not be an easy task. Though it appears that the use of AI in CRM is considered as a lucrative mechanism for fetching effective business benefits of business organization, there are some challengers when the organization becomes ready to implement AI in CRM for improving the business. These are divided into four categories like issue concerning to the data, issue of expertise, matters concerning infrastructure of the organization and the issue of context (Schultz and Pick, 2012). Now, we will discuss in brief how a business organization can address these challenges meaningfully.

5.1 Challenges concerning data

It is to be borne in mind that success in business does not depend on how much volume of data, a business organization has been able to capture (Real *et al.*, 2006), but it matters how those data containing different essential information of customers have been effectively arranged and organized (Marinkovic *et al.*, 2017). It is a common experience that business data very often constitute a hodgepodge or an irregular heterogeneous mixture of data available from internal and external sources (Shang *et al.*, 2017). These are dependent on a mixture of on-premise systems and of cloud. Very often, these two systems form a mal- and heterogeneous mixture, and they lead to soil the quality of data set rendering it very much ineffective and inconsistent (Roy *et al.*, 2017). Through cloud-based CRM solutions, it is possible to design to connect different types of data which can accurately create a single view of each potential customer. This approach is considered highly effective because it can avail maximum advantage of AI opportunity (Sumak *et al.*, 2010).

5.2 Expertise challenge

A business organization may have effective data storage, but this will not fetch complete business benefit unless the organization is capable of having effective expertise to scientifically analyze those available data and to act on it (DeKerviler *et al.*, 2016). Two common problems are usually faced by a business organization in this context. One is soiled data storage and another problem is availability of efficient data scientists (Hew *et al.*, 2015). However, fortunately, if the data so stored are otherwise in order, there is an advantage that AI tools can process the data without the help of data scientists.

5.3 Challenges with infrastructure

We have already mentioned that soiled and discrete data sources effectively and considerably limit the ability of a business organization to accurately leverage their data. This is multiplied with the weak and fragmented infrastructure systems of a business organization. For having the power to apply and run AI algorithms, there is need of availability of effective and congenial infrastructure relating to handle modern computing system. But, high cost of appropriate computing system and high cost of on-premise hardware sometimes stand on the way for many business organizations to adopt AI-integrated CRM system (Chan and Yee-Loong Chong, 2013). However, it is a matter of hope

that a cloud computing system has appreciably made AI integration more affordable and accessible (Awasthi and Sangle, 2012). This has become effective to somehow manage the situation.

5.4 Context challenges

It is considered as a major challenge in making the CRM activities ready for application of AI. In respect of many business organizations, application of AI is not only considered out of reach but also is seemed to be irrelevant (Lee, 2011). It is a common experience that popular culture leads to imagine applications of AI in CRM to a business organization is a buzzword, rather than considering it as an essential ingredient of a successful modern business process (Jin *et al.*, 2013). The stakeholders are required to upgrade their ideas and to enrich them by learning how application of AI in CRM would transform sales, IT, marketing and services by effectively automating mundane tasks (Joo and Sang, 2013). The stakeholders are also scheduled to learn how AI application would be able to add more value to every employee of a business organization (Nassuora, 2013).

6. After updating data and next steps for AI

By adopting appropriate approaches to make the data fit for use by AI mechanisms and after meeting the challenges, it has been possible to close the gap to a great extent between business intelligence and experience of customers. The use of new tools has been able to reveal effective insights about the potential customers (Lo. 2014). The basic tools required would pull the information of customers, whereas the most intelligent and effective tools would push information to the organization. This helps the organizations to anticipate what the organizations want to know (Mohammadi, 2015). The business organizations that embrace the AI opportunity would be able to effectively create the expected modern experience of the customers. The machine learning would analyze the calibrated data to know the customers in a better way. It would help the organizations to anticipate and predict specifically the need of the customers for serving them better (Natarajan et al., 2017). It would be able to create a complete view of potential customers. As AI has no boundaries, the AI-CRM applications are required to upgrade learning capabilities continuously. These would be better achieved if next steps are taken to ensure good governance for proper execution and to take attempts to improve data quality and then to put into actions. There are enumerable scopes for effectively improve and strengthen AI-integrated CRM features (Saxena, 2017).

To make the products of the organizations connected with the applications, the Internet-of-Things conception is there (Nguyen and Simkin, 2017). For ensuring intimate and constant customers engagement automatically, chatbots are there. For security and identity issues, face recognition software is there and so on (Sun and Chi, 2017). Some of these modern tools are needed to be implemented by the organizations for achieving their goals and to meet the needs. However, it is to be made clear, for achieving success, mere fancy of use of advanced technology without targeting to achieve goals would not fetch any effective help to the business of organizations (Tan et al., 2016). Specific use of tools concerning to AI applications in business organizations toward their business goals would be able to easily resolve business problems of organizations. However, mere implementation of modern AI-related tools might not fetch full success. Organizations also need good governance (Seol et al., 2016) for appropriate implementation, as already mentioned.

The business and IT teams of organizations should be engaged to continuously audit and monitor the actions so created by application of AI tools. Continuous validation of the results is needed, and if essential, the algorithms are to be reconciled and corrected to achieve better business results (Koksal, 2016). In capturing data of customers, the concerned team of business organizations should be alerted to follow prevalent ethics of capturing customer data techniques. Not only that. While collecting calibrated data of customers, attention is to be given so that the data gathering mechanisms do not contradict local data security guidelines (Yen and Wu, 2016). If all these are done accurately, it would fetch best results.

7. The conceptual framework

A conceptual framework is provided in Figure 1. It consists of use of indicators in three colors – red, vellow and green. The framework has mainly been segmented in three major heads. We have already discussed that, through CRM mechanisms, the various kinds of data of customers are captured for analysis with the help of AI to accurately predict their purchase behavior, likings and dislikings and so on. But, these data are not arranged and categorized properly at the initial stage to become readily fit to be used by AI algorithms, As already discussed, different approaches are taken for making the captured data arranged. The indicators in the framework would show if the different approaches are not ready (by showing red color), partially ready (by showing yellow color), or fully ready (by showing green color). At a glance, the authority by seeing the indicators would act accordingly. In the same way, the status of addressing different challenges to be faced to make the heterogeneous captured data fit and ready for use of AI can be visualized by the authority at a glance seeing the indicators of the framework in the same manner as already discussed earlier. For ensuring proper implementation through good governance concerning to AI-integrated CRM systems, the status of different stages can be realized by the authority readily at a glance with the help of the indicator position. Thus, the authority will be able to reconcile the raw data by rendering them appropriately categorized through these three major operational procedures. The work of doing so would become easier and quicker with the help of this conceptual framework. The framework would help the authority to readily ascertain the status of the work progress. It would also help the authority to quickly provide proper treatment in case of any impediment, and it would then hasten the process. It could eventually bring in business development of an organization with ease in a quicker way.

Develop effective data and AI algorithms and related strategy	Approaches for actionable customer data for AI-CRM integration	Indicator	Different challenges (need to overcome)	Indicator	Next steps for AI integration (After updating of data)	Indicator	Adoption of AI-CRM System
	Social Approach	•••	Data Challenges	•••	Close all possible gaps	• • •	
	Integration Approach	•••	Expertise Challenges	•••	Push information to organization	• • •	
	Auditing Approach	•••	Infrastructure Challenges	•••	Effective training and readiness strategy	• • •	
	Regularization Approach	• • •	Context Challenges	•••	Effective change management strategy	• • •	
	Analytical Approach	•••	Any additional Challenges	•••	Close alignment between business&IT	•••	

■ Indicator showing the organization is not ready

Figure 1.
A conceptual framework for organizational readiness for effective AI–CRM integration

[→] Indicator showing the organization is somehow ready (In progress)

[→] Indicator showing the organization is fully ready

8. Discussion

The conceptual framework developed in this study implies that it would help organizations to enjoy more options to explore business markets. It would help the organizations to improve the management mechanisms of their customers, especially by the appropriate use of AI integration with the CRM system. The conceptual framework provided would help the management authorities of the business organizations a lot to make the captured data ready and fit for use by the AI algorithms. The framework would help to understand the status of the process for data organization. The different approaches like social approach, integration approach, auditing approach, regularization approach and analytical approach have been elaborated exhaustibly so that the organizational stakeholders can exert all possible channels with the help of these approaches to make the data of customers so captured ready and fit for the use of AI in CRM-related activities. The approaches have been elucidated in this article systematically with some explicit practical examples so that the organizational stakeholders can easily proceed to make the data matured for use by the application of AI algorithms to fetch best business results. The article has methodically and systematically synthesized the probable challenges the organizations would likely to face in making the raw and uncalibrated data ready and fit for appropriate use by AI algorithms. The challenges have been sectorized in different heads like issues concerning to data, issues of expertise expected to have possessed by data scientists for arranging the heterogeneous data ready and fit for AI use, issue of availability of congenial infrastructure and contextual challenges. The organizations will be able to make their CRM system ready for AI integration by different approaches explained in this article after overcoming the challenges apprehended to be faced in course of these approaches. Because the challenges have been explained systematically, it is expected that the concerned practitioners will not feel any problem to overcome any challenge if it poses any impediment during the process of approach for making the captured data fit and ready for AI integration. Usually, through CRM mechanisms, collected data are analyzed to understand likings and dislikings of potential customers which are essential to ensure better business results. But, because the data so captured are huge in nature, it becomes difficult for humans to accurately analyze those data for effective and accurate decision-making. However, use of AI algorithm in this respect would bring in more accurate analysis with less cost without human involvement, and in this conjecture, this framework demands to be helpful to act as a mirror for the practitioners to easily realize the ailment at any point of time during the process of data customization and would readily be able to provide appropriate treatment.

9. Implications of the study

The study has shown that the combination of CRM and AI is powerful. AI technologically depends on correct data in a befitting way where the internet plays a vital role. Internet and social media usage are the backbone of an organizational process concerning to modern marketing and sales efforts. Modern CRM tools are constantly engaged to capture and categorize different types of customers' information. It is noted that an employee of an organization not only likes to have an access to gather data like contact details of potential sales leads, but also now the employees collect the job hierarchy, detail statistics about every interaction of the sales lead with the concerned organization and even the social media portfolio of the valued customers. All this information is collected and is digested by the organization. However, it is very difficult for the salespeople of the organization to analyze this multifarious information for decision-making. The seller may be excellent as the salesperson, but it is not expected that the seller would be able to accurately function as a

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- predictive lead scoring for better decision-making;
- accurate forecasting;
- Proper recommendation that improves sales; and
- · social profiling and searching with the use of natural language.

The AI-integrated CRM system (AICS), if applied on the calibrated and actionable data so gathered by the organizations about the potential customers, would make smart recommendations concerning to a customer. It would fetch effective benefit to the organization.

By this way, with the help of this combined system, a salesperson can easily get an informed decision about a customer without spending much time and effort, and the decision is expected to be accurate also. This would help the salesperson of the organization to get accurate information about the customer, and the seller can act accordingly.

Thus, if the data so captured are made appropriately useable for an AI application, it would bring in business success to the organization.

10. Conclusion

We have already discussed the detailed mechanisms for transforming customers' data analysis by harnessing the power of AI in CRM. With calibrated and actionable data of customers, customer intelligence starts. This provides a comprehensive and a single integrated view of each potential customer. However, it has been made clear that, without actionable and befitting data, AI algorithms, whatever advanced might it be, will hardly be capable of delivering meaningful and effective predictive experiences. A business organization must have abilities to possess right data analysis expertise and staffing to effectively capture, mine, synthesize and appropriately use data to flawlessly predict customer's behavior with the help of AI. This is what is known as correct AI-integrated CRM abilities of a business organization. A comprehensive and effective CRM platform capable of accepting usable integrated set of AI technologies would clearly provide the potential customers with easy access to all the available data helpful for their decisionmaking. CRM activities would capture the data of the customers methodically overcoming the challenges. This data are to be made ready and fit for AI application. This would ultimately fetch success to a business organization. This calibrated approach would turn a CRM platform into an effective and ideal technology choice to accurately manage the relationship with potential customers. This would eventually lead to build various types of apps, including a receivable app to such type of app that can predict late payments too. It can also build a supply chain app which would be able to honestly manage stock levels basing on the demand so expected. However, all these AI-contributed technologies would work effectively if and only if the business organizations can capture actionable and effective customer's data through the help of CRM activities. Mere collection of data of customers without their proper segmentation would not fetch effective results by application of AI. Before application of AI, the data should be congenial for action by AI application. If it is done, the AICS would harness best results. Thus, there should be a framework which would highlight how far the data so captured have been made ready and actionable for AI application. In this context, the conceptual framework so provided is expected to act as an effective instrument to readily realize if the data so captured have been able to be appropriately actionable for use through AI algorithms. The framework is also

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considered to act as an effective status-knowing mirror for the authority that would help the authority to administer proper treatment, in case the progress is interrupted. Moreover, if AI is utilized properly with CRM, a business organization would not only be able to predict product recommendations, but it would also ensure other capabilities which would effectively and appreciably enhance CRM activities for both the customers and the organizational employees. This would include sentiment analysis, algorithm, speech recognition analysis, content summarization with the help of natural language processing and question answering (FAQs) based on tables of actionable data.

However, it is sure that, to harvest maximum benefits with the AI on CRM, the IT cell within a business organization must have the expected capabilities and expertise. For this, extensive research and development works are to be conducted. If this is achieved with complete success, AI will be able to build any type of app with flawless visual programming capabilities without having the need of data scientists' team on standby. The proposed conceptual framework is expected to act as a handy and sharp weapon for the authority to plug up any type of lacuna that might stand on the way toward the progress of rendering the uncalibrated data ready for use of AI effectively. This conceptual framework is expected to function as a full-fledged framework when it will get scope for validation. In that case, there will be no need of engaging an in-house team of data scientists. The AICS would provide appreciable financial advantages to the organizations by analyzing the customers' data without much human intervention. This would help achieving success to the organizations.

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